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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/813,228 | 03/31/2004 | Charles E. Benedict | 14630 | 3874 |
| 293 | 7590 | 10/31/2007 | EXAMINER | |
| Ralph A. Dowell of DOWELL & DOWELL P.C. 2111 Eisenhower Ave Suite 406 Alexandria, VA 22314 | | | ADAMS, GREGORY W | |
| | | ART UNIT | PAPER NUMBER | |
| | | 3652 | | |
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| | | 10/31/2007 | | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|------------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/813,228 | BENEDICT ET AL. |
| | Examiner Gregory W. Adams | Art Unit 3652 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 September 2007.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-13 and 18-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-13 and 18-24 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Continued Examination

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Sept. 10, 2007 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6 recites the limitation "said first and second tracks" in line 7. There is insufficient antecedent basis for this limitation in the claim. It is noted that claim 6 formerly depended from claim 5 but for an apparent typographical error. For purposes of examination the examiner will interpret claim 6 as depending from claim 5. Appropriate correction is respectfully requested.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear whether Applicant is claiming the subcombination of a material handling storage system or the combination of a material handling storage system in a hold of a vessel. It would be better to recite —A material handling storage system in a hold of a vessel— for clarity.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

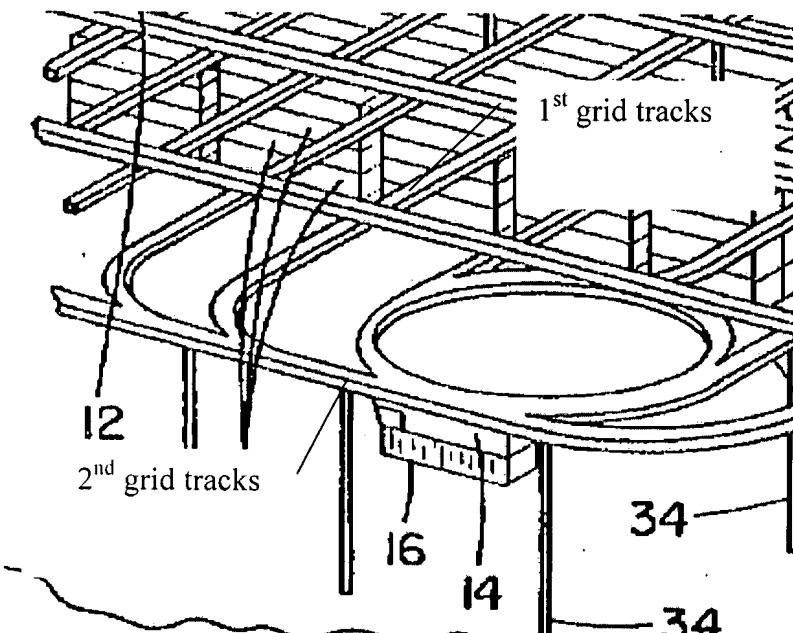
Claims 1, 7, 9, 12, 18 & 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Brickner et al. (US 4,973,219) (previously cited).

With respect to claims 1 & 24, Brickner et al. disclose-

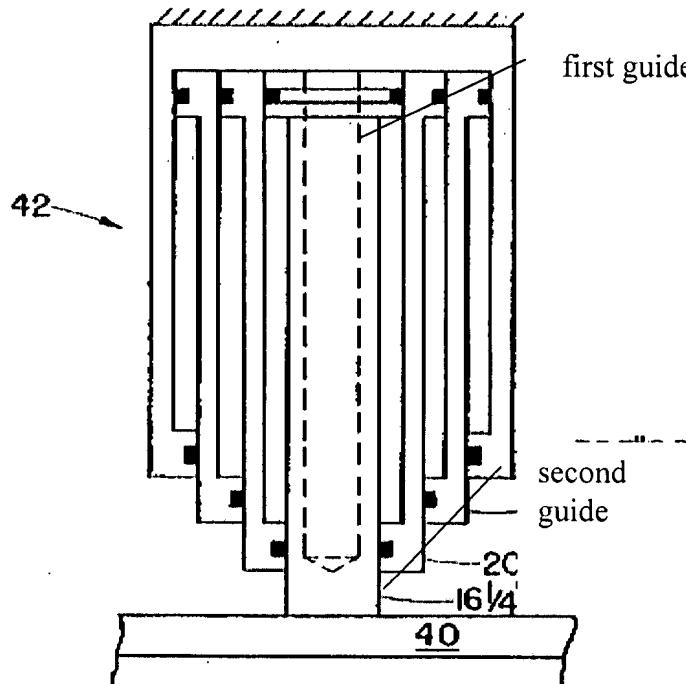
- vertical cells structure 12, 34, 36
- tier levels, e.g. stacked containers 16
- grid track system 12 above vertical cells
- grid first tracks intersecting with second grid tracks (see FIG. 1 reproduced below)
- transfer unit 14 suspended from a grid track system
- a plurality of carriage means (indicated generally as 44) suspending a transfer unit

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- transfer unit drive means 54
- spreader beam 40
- hoist means 55
- guide member 42
- means (C18/L30-45) for providing electrical power to a drive means.



With respect to claims 7 & 18, Brickner et al. disclose a first guide member mounted to a transfer unit and a second guide member mounted to a spreader beam 40 said guide member comprising arms. See FIG. 9 reproduced below.



With respect to claim 9, Brickner et al. disclose two drive motors 54.

With respect to claim 12, Brickner et al. disclose inductive power raceway.

(C18/L30-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. in view of Nordstrom (US 4,043,285) (previously cited).

With respect to claim 2, Brickner et al. does not disclose cells mounted with a hold of a vessel and deck plates. Nordstrom discloses a structure 46, 50, 52 defining a

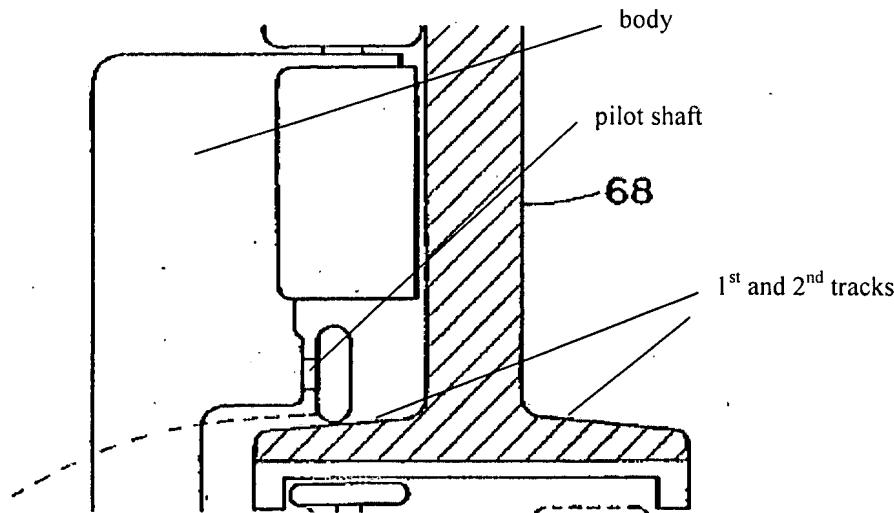
plurality of vertical cells in a ships hold (FIG. 3) each cell having a plurality of tier levels and being of a size to cooperatively receive a storage and shipping container in each tier level and deck plates 24. Nordstrom discloses a plurality of transfer units mounted to a grid, columns and tiers (indicated generally as 12, 34, 52) as is common in dense storage of containers because containers are generally accepted as capable of the stresses inherent in stacking which are more accessible to on-board gantry cranes 82 which improves a ships center of gravity. C1/L4-9. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Toda to include a plurality of transfer units, columns and tiers, as per the teachings of Nordstrom, to improve the center of gravity of a loaded ship.

Claims 3-6, 9-11, 13 & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. in view of Davis (US 3,252,603) (previously cited).

With respect to claims 3-5, 9-11 & 22, Brickner et al. discloses drive motors 54 and movable housings (indicated generally as 66; see also FIG. 8) does not disclose first drive gears engageable with rack members, said drive gears driven by drive motors and guide means. Davis discloses a rack 134 engaged by a first drive gear 136, 136, drive motors 138, 138 and guide means 129 such that during lifting and transfer by an overhead material handling and storage system that is simple and compact, durable and economical. C2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the drive means of Brickner et al. to include a plurality of rack members extending along each of the tracks, first drive

gears that engage first and second drive motors and guide means, as per the teachings of Davis, to simplify an overhead material handling and storage system.

With respect to claims 6 & 13, Brickner et al. discloses rollers 44 mounted to a body, each body received within a channel 68, pilot shaft. See FIG. 8 reproduced below.



Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. in view of Shiota (US 6,161,887) (previously cited).

With respect to claim 8, Brickner et al. does not disclose two hoist assemblies including a pair of winding drums, cables and hoist motor. Shiota discloses two hoist assemblies, each comprising a pair of winding drums 11, cables 10 connected to a spreader frame 8, and hoist motor 9. Shiota improves on the actuator-only system of lifting shipping containers because the solution of the prior art did nothing to prevent the load from swinging when transported horizontally. C1/L30-40. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Brickner et al. to include two hoist assemblies including

winding drums, cables and hoist motor, as per the teachings of Shiota, for stable container transfer while hoisted.

Claims 19 & 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. in view of Lucking (US 5,915,906) (previously cited).

With respect to claims 19 & 23, Brickner et al. discloses two walls and does disclose guide walls that are flared outwardly at a lower portion. Lucking discloses guide arms 16 having two guide walls and flared outwardly at a lower portion thereof to align a grab object eliminating swing or sway. C1/L34. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Brickner et al. to include guide arms having two guide walls flared outwardly at a lower portion thereof, as per the teachings of Lucking, to eliminate swing or sway.

Allowable Subject Matter

The indicated allowability of claims 5-6, 8, 10-11, 13 & 20 is withdrawn in view of interpreting Brickner et al. in light of the broadest reasonable interpretation of at least claims 1, 4-7, 9, 11-13, 22 & 24 as amended on Sept. 10, 2007. Rejections based on the newly cited reference(s) are above.

Response to Arguments

Applicant's arguments with respect to claims 1-13 & 18-24 have been considered but are moot in view of the new ground(s) of rejection. Upon a second reading the examiner notes that the Brickner reference reads on at least claims 1, 7, 9, 12, 18 & 24

under the broadest reasonable interpretation. The examiner regrets any inconvenience this may cause.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GWA

Drey Adams
10/23/07

Saul Rodriguez
SAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER